

## PATENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark  
Office  
(Box PCT)  
Crystal Plaza 2  
Washington, DC 20231  
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 08 February 1999 (08.02.99)	
International application No. PCT/US98/11958	Applicant's or agent's file reference 19244-706
International filing date (day/month/year) 09 June 1998 (09.06.98)	Priority date (day/month/year) 09 June 1997 (09.06.97)
Applicant GOIX, Philippe	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
31 December 1998 (31.12.98)

☐ in a notice effecting later election filed with the International Bureau on:  
\_\_\_\_\_

2. The election ☒ was  
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer C. Carrié
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

*Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.*

A method and apparatus for detecting a fluorescent substance tagged to a microparticle are described. The device comprises a single capillary flow carrier system for transporting the microparticle past a selected location, a source of electromagnetic radiation for irradiating the substance tagged to the microparticle, and a detection system for measuring fluorescent light emitted from the substance at the selected location. The method comprises transporting the microparticle to a selected location, irradiating a fluorescent substance tagged to the microparticle, and measuring the fluorescent light emitted from the fluorescent substance at the selected location.

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
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AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece			TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
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BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
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CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	NZ	New Zealand		
CM	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

## INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/US 98/11958

## A. CLASSIFICATION OF SUBJECT MATTER

G 01 N 21/64

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G 01 N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 2032097 A (BECTON DICKINSON AND COMPANY) 30 April 1980 (30.04.80), abstract, page 1, lines 7-20, claims, fig. 1. --	1, 2, 28
A	US 4668868 A (NOLLER, H.T.) 26 May 1987 (26.05.87), abstract, claims, fig. 1, 2. --	1, 2, 8, 28, 36
A	US 4243318 A (STÖHR, M.) 06 January 1981 (06.01.81), the whole document. --	1, 2, 9, 14, 16, 17, 18, 28
A	EP 0289976 A2 (KRAUSE, H.) 09 November 1988	1, 2, 28

☒ Further documents are listed in the continuation of box C.☐ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

07 October 1998

Date of mailing of the international search report

13. 11. 98

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+ 31-70) 340-2040, Tlx. 31 651 epo nl,  
Fax (+ 31-70) 340-3016

Authorized officer

ERBER e.h.

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 98/11958

-2-

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>(09.11.88), abstract, claims, fig. 1-7. --</p> <p>EP 0177813 A1 (LABSYSTEMS OY) 16 April 1986 (16.04.86), abstract, claims, fig. 1-3. ----</p>	<p>1,2,8, 10,11, 28,37</p>

# ANHANG

zum internationalen Recherchen-  
bericht über die internationale  
Patentanmeldung Nr.

# ANNEX

to the International Search  
Report to the International Patent  
Application No.

# ANNEXE

au rapport de recherche inter-  
national relatif à la demande de brevet  
international n°

PCT/US 98/11958 SAE 197095

In diesem Anhang sind die Mitglieder  
der Patentfamilien der im obenge-  
nannten internationalen Recherchenbericht  
angeführten Patentdokumente angegeben.  
Diese Angaben dienen nur zur Unter-  
richtung und erfolgen ohne Gewähr.

This Annex lists the patent family  
members relating to the patent documents  
cited in the above-mentioned inter-  
national search report. The Office is  
in no way liable for these particulars  
which are given merely for the purpose  
of information.

La présente annexe indique les  
membres de la famille de brevets  
relatifs aux documents de brevets cités  
dans le rapport de recherche inter-  
national visée ci-dessus. Les renseigne-  
ments fournis sont donnés à titre indica-  
tif et n'engagent pas la responsabilité  
de l'Office.

In Recherchenbericht angeführtes Patentdokument in search report Document de brevet cité dans le rapport de recherche	Datum der Veröffentlichung Publication date Date de publication	Mitglied(er) der Patentfamilie Patent family member(s) Membre(s) de la famille de brevets	Datum der Veröffentlichung Publication date Date de publication
GB A1 2032097	30-04-80	DE A1 2929170 DE C2 2929170 FR A1 2431696 FR B3 2431696 GB B2 2032097 US A 4172227	12-06-80 09-02-84 15-03-80 29-05-81 13-10-82 23-10-79
US A 4668868	26-05-87	keine - none - rien	
US A 4243318	06-01-81	DE B1 2732272 DE C2 2732272 FR A1 2397634 GB A1 2002109 GB B2 2002109	26-10-78 05-07-79 09-02-79 14-02-79 13-01-82
EP A2 289976	09-11-88	DE A1 3715114 DE C0 3883061 EP A3 289976 EP B1 389976 US A 5225333	17-11-88 16-09-93 08-08-90 11-08-93 06-07-93
EP A1 177813	16-04-86	FI A0 844027 FI A0 853984 FI A 844027 FI A 853984 JP A2 61096467 US A 4777145	12-10-84 14-10-85 13-04-86 13-04-86 15-05-86 11-10-88

RECEIVED

PATENT COOPERATION TREATY

JUL 7 1999

GUAVA TECH  
19244-706  
JSC

From the WILSON, SONSINI,  
GOODRICH & ROSATI  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

SU, Jinntung  
Wilson, Sonsini, Goodrich & Rosati  
650 Page Mill Road  
Palo Alto, California 94304-1050  
ETATS-UNIS D'AMERIQUE

DOCKETED

PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 71.1)

Date of mailing  
(day/month/year)

- 1. 07. 99

Applicant's or agent's file reference  
19244-706

## IMPORTANT NOTIFICATION

International application No.  
PCT/US98/11958

International filing date (day/month/year)  
09/06/1998

Priority date (day/month/year)  
09/06/1997

Applicant  
GUAVA TECHNOLOGIES, INC. et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

## 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/



European Patent Office  
D-80298 Munich  
Tel. (+49-89) 2399-0 Tx: 523656 epmu d  
Fax: (+49-89) 2399-4465

Authorized officer

Conner, M

Tel. (+49-89) 2399-2241



# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>19244-706</b>	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. <b>PCT/US98/11958</b>	International filing date ( <i>day/month/year</i> ) <b>09/06/1998</b>	Priority date ( <i>day/month/year</i> ) <b>09/06/1997</b>
International Patent Classification (IPC) or national classification and IPC <b>G01N21/64</b>		
Applicant <b>GUAVA TECHNOLOGIES, INC. et al.</b>		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
 

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of    sheets.

3. This report contains indications relating to the following items:

- I    ☒ Basis of the report
- II   ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V   ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand  <b>31/12/1998</b>	Date of completion of this report  <div style="text-align: right;"><b>1. 07. 99</b></div>
Name and mailing address of the international preliminary examining authority:  <div style="display: flex; align-items: center;"> <div>             European Patent Office              D-80298 Munich              Tel. (+49-89) 2399-0 Tx: 523656 epmu d              Fax: (+49-89) 2399-4465           </div> </div>	Authorized officer  <b>Loades, M</b>  Telephone No. (+49-89) 2399 2184





**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US98/11958

**I. Basis of the report**

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

**Description, pages:**

1-16 as originally filed

**Claims, No.:**

1-37 as originally filed

**Drawings, sheets:**

1/14,3/14-14/14 as originally filed

2/14 as received on 15/02/1999 with letter of 09/02/1999

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US98/11958

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims	6,7,9-12,22-27,31,34,35
	No:	Claims	1-5,8,13-21,28-30,32,33,36
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-36
Industrial applicability (IA)	Yes:	Claims	1-36
	No:	Claims	

**2. Citations and explanations**

**see separate sheet**

**~~VII. Certain defects in the international application~~**

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

---

International application No. PCT/US98/11958

**SECTION V**

1. The following documents are referred to in this report:

(documents not cited in the search report; copies supplied with this opinion):-

D1.....US-A-5351118

D2.....WO-A-96/12963

(documents cited in the search report):-

D3.... GB 2 032 097 A (BECTON DICKINSON AND COM- PANY) 30 April 1980 ,

D4.....US 4 668 868 A (NOLLER, H.T.) 26 May 1987

D5.....US 4 243 318 A (ST HR, M.) 06 January 1981

D6.....EP 289 976 A2 (KRAUSE, H.) 09 November 1988

D7.....EP 177 813 A1 (LABSYSTEMS OY) 16 April 1986

2. Novelty and inventive step

**Claim 1**

D1 discloses a device for detecting microparticles in a fluid. Although claim 1 is directed only to apparatus suitable for detecting particles tagged with fluorescence substance, and is thus not restricted to this application, D1 also discloses such particles - see e.g. col 1, paragraph 6 and col. 3, lines 58-60. The device of D1 comprises a capillary chamber ( see col. 19, lines 46-66) and uses a source and detector to measure fluorescence (see col. 21, lines 51-59). A fluid delivery system is described in cols 16-19 and shown in e.g. figs 1,3,5.

Thus the subject matter of claim 1 is not novel

**Claims 16,28**

For similar reasons these claims are also not novel.

D2 also describes an apparatus which is described for use with a static blood sample, but which could be used also for a sample passed through the sample chamber, and thus anticipates claims 1 and 16. It also reads onto claim 28.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

---

International application No. PCT/US98/11958

**Dependent claims**

The dependent claims seem to relate to mere design modifications, consequential features of the basic system of claims 1,16,28 , or conventional features, and thus do not add anything inventive to these claims:

Claims 2, 20: see D1, D2

Claims 3, 29, 30, 31: see e.g. D2

Claims 4, 32: see D2

Claims 5-7, 21-23, 33-35: see D6, D7

Claims 8,36: see e.g. D3, D7

Claim 9: see e.g. D5

Claims 10, 11, 26, 27, 37: see D7

Claim 12,13: see e.g. D2

Claims 14, 15, 17,18: see e.g. D1

**SECTION VII**

To comply with the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1, D2, D3, D4, D5, D6 and D7 should have been mentioned in the description.

**SECTION VIII**

1. The presence of the two apparatus independent claims 1 and 16 of varying scope and including features repeated using only slightly varying terminology results in a general lack of conciseness in the claims. Moreover, lack of clarity of the claims as a whole arises, since the plurality of independent claims makes it difficult to determine the matter for which protection is sought, and places an undue burden on others seeking to establish the extent of the protection.

2. Claims 29-37 should apparently relate to a method, not a device.

3. Claims 2-10, 20-24, 26 are obscure in scope, since they attempt to define the apparatus in terms of a sample or parameters thereof, etc. which are not part of the apparatus. Apparently use claims would have been more appropriate.

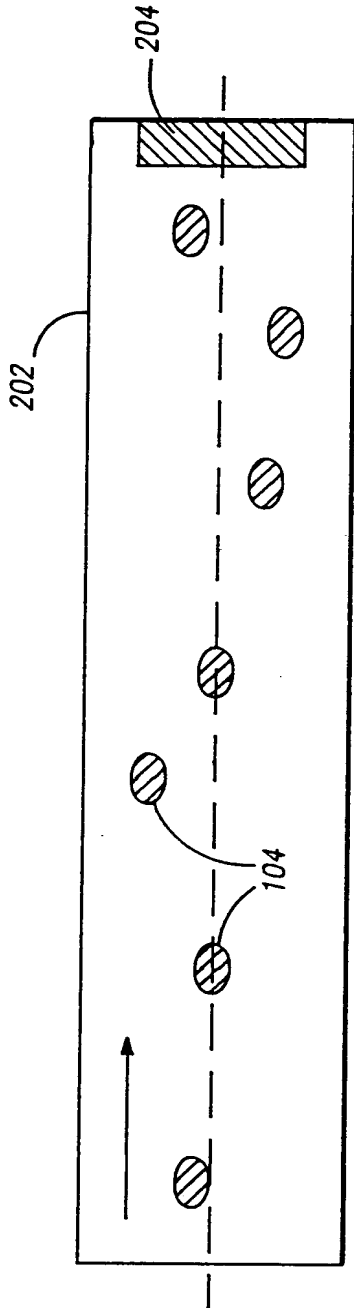


FIG. -2B

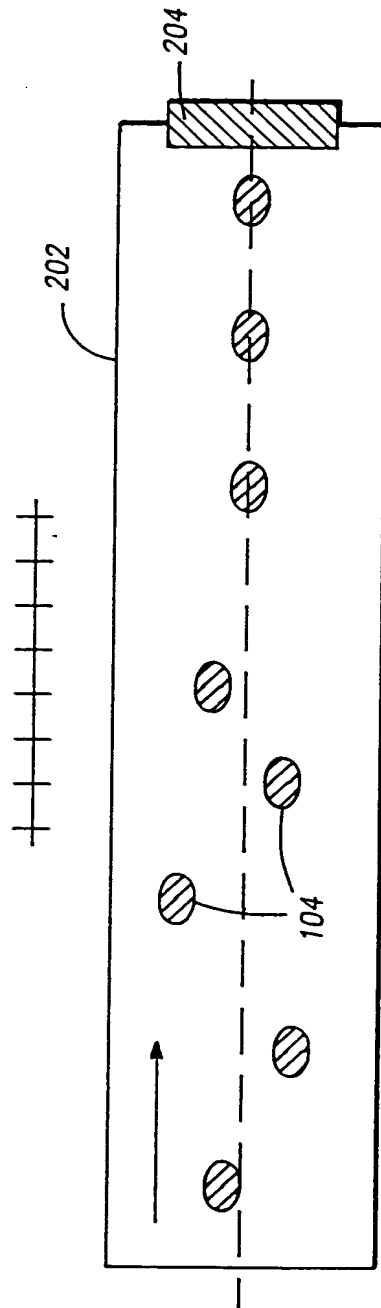


FIG. -2C

## PCT

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## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>19244-706</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/US 98/ 11958</b>	International filing date (day/month/year) <b>09/06/1998</b>	(Earliest) Priority Date (day/month/year) <b>09/06/1997</b>
Applicant <b>GUAVA TECHNOLOGIES, INC. et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (see Box I).
2. ☐ Unity of invention is lacking (see Box II).
3. ☐ The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing
  - ☐ filed with the international application.
  - ☐ furnished by the applicant separately from the international application,
    - ☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.
  - ☐ Transcribed by this Authority
4. With regard to the title,
  - ☒ the text is approved as submitted by the applicant.
  - ☐ the text has been established by this Authority to read as follows:
5. With regard to the abstract,
  - ☒ the text is approved as submitted by the applicant.
  - ☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this International Search Report, submit comments to this Authority.
6. The figure of the drawings to be published with the abstract is:  
Figure No. \_\_\_\_\_
  - ☐ as suggested by the applicant.
  - ☐ because the applicant failed to suggest a figure.
  - ☐ because this figure better characterizes the invention.

☒ None of the figures.

## A. CLASSIFICATION OF SUBJECT MATTER

G 01 N 21/64

According to International Patent Classification (IPC) or to both national classification and IPC 6

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G 01 N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 2032097 A (BECTON DICKINSON AND COMPANY) 30 April 1980 (30.04.80), abstract, page 1, lines 7-20, claims, fig. 1. --	1, 2, 28
A	US 4668868 A (NOLLER, H.T.) 26 May 1987 (26.05.87), abstract, claims, fig. 1, 2. --	1, 2, 8, 28, 36
A	US 4243318 A (STÖHR, M.) 06 January 1981 (06.01.81), the whole document. --	1, 2, 9, 14, 16, 17, 18, 28
A	EP 0289976 A2 (KRAUSE, H.) 09 November 1988	1, 2, 28

☒ Further documents are listed in the continuation of box C.☐ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\* & \* document member of the same patent family

Date of the actual completion of the international search

07 October 1998

Date of mailing of the international search report

13. 11. 98

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+ 31-70) 340-2040, Tx. 31 651 epo nl,  
Fax (+ 31-70) 340-3016

Authorized officer

ERBER e.h.

## C(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>(09.11.88), abstract, claims, fig. 1-7. --</p> <p>EP 0177813 A1 (LABSYSTEMS OY) 16 April 1986 (16.04.86), abstract, claims, fig. 1-3. ----</p>	<p>1,2,8, 10,11, 28,37</p>



# ATENT COOPERATION TREATY

RECEIVED

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To:  
Wilson, Sonsini, Goodrich & Rosati  
Attn. SU, Jinntung  
650 Page Mill Road  
Palo Alto, California 94304-1050  
UNITED STATES OF AMERICA

NOV 16 1998

WILSON, SONSINI,  
GOODRICH & ROSATI

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT  
OR THE DECLARATION

(PCT Rule 44.1)

## WSGR PATENT DOCKET

U.S.: \_\_\_\_\_ FOREIGN: \_\_\_\_\_  
DOCKETED: \_\_\_\_\_ BY: \_\_\_\_\_  
ACTION: \_\_\_\_\_

Date of mailing  
(day/month/year)

13. 11. 98

Applicant's or agent's file reference

19244-706

FOR FURTHER ACTION

See paragraphs 1 and 4 below

International application No.

PCT/US 98/11958

ATTY: \_\_\_\_\_ CM #: \_\_\_\_\_

International filing date

(day/month/year)

09/06/1998

Applicant

GUAVA TECHNOLOGIES, INC. et al.

1. ☒ The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

~~Filing of amendments and statement under Article 19:~~

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

**When?** The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

**Where?** Directly to the International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland  
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicants's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90 bis.1 and 90 bis.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patentlaan 2  
NL-2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Françoise Salvador-Dubret

## NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

### INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

#### What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

#### When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

#### Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

#### How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

#### What documents must/may accompany the amendments?

##### Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

## NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:  
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:  
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:  
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or  
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:  
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

### "Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

### Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

### Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>19244-706</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/US 98/ 11958</b>	International filing date (day/month/year) <b>09/06/1998</b>	(Earliest) Priority Date (day/month/year) <b>09/06/1997</b>
Applicant  <b>GUAVA TECHNOLOGIES, INC. et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (see Box I).

2. ☐ Unity of invention is lacking (see Box II).

3. ☐ The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing

☐ filed with the international application.

☐ furnished by the applicant separately from the international application,

☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.

☐ Transcribed by this Authority

4. With regard to the title, ☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this International Search Report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is:

Figure No. \_\_\_\_\_ ☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

A. CLASSIFICATION OF SUBJECT MATTER

G 01 N 21/64

According to International Patent Classification (IPC) or to both national classification and IPC 6

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G 01 N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 2032097 A (BECTON DICKINSON AND COMPANY) 30 April 1980 (30.04.80), abstract, page 1, lines 7-20, claims, fig. 1.	1, 2, 28
A	US 4668868 A (NOLLER, H.T.) 26 May 1987 (26.05.87), abstract, claims, fig. 1, 2.	1, 2, 8, 28, 36
A	US 4243318 A (STÖHR, M.) 06 January 1981 (06.01.81), the whole document.	1, 2, 9, 14, 16, 17, 18, 28
A	EP 0289976 A2 (KRAUSE, H.) 09 November 1988	1, 2, 28

☒ Further documents are listed in the continuation of box C.

☐ Patent family members are listed in annex.

\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search  
07 October 1998

Date of mailing of the international search report  
13. 11. 99

Name and mailing address of the ISA  
European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+ 31-70) 340-2040, Tx. 31 651 epo nl,  
Fax (+ 31-70) 340-3016

Authorized officer

ERBER e.h.

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>(09.11.88), abstract, claims, fig. 1-7. --</p> <p>EP 0177813 A1 (LABSYSTEMS OY) 16 April 1986 (16.04.86), abstract, claims, fig. 1-3. ----</p>	<p>1,2,8, 10,11, 28,37</p>

## PATENT COOPERATION TREATY

## PCT

REC'D 05 JUL 1999

WIPO PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 19244-706	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US98/11958	International filing date (day/month/year) 09/06/1998	Priority date (day/month/year) 09/06/1997
International Patent Classification (IPC) or national classification and IPC G01N21/64		
Applicant GUAVA TECHNOLOGIES, INC. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 5 sheets, including this cover sheet.

- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand  31/12/1998	Date of completion of this report  - 1. 07. 99
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. (+49-89) 2399-0 Tx: 523656 epmu d Fax: (+49-89) 2399-4465	Authorized officer  Loades, M  Telephone No. (+49-89) 2399 2184 

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US98/11958

**I. Basis of the report**

1. This report has been drawn on the basis of *(substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

**Description, pages:**

1-16 as originally filed

**Claims, No.:**

1-37 as originally filed

**Drawings, sheets:**

1/14,3/14-14/14 as originally filed

2/14 as received on 15/02/1999 with letter of 09/02/1999

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US98/11958

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Yes:	Claims	6,7,9-12,22-27,31,34,35
	No:	Claims	1-5,8,13-21,28-30,32,33,36
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-36
Industrial applicability (IA)	Yes:	Claims	1-36
	No:	Claims	

### 2. Citations and explanations

**see separate sheet**

## VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

## VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

---

International application No. PCT/US98/11958

**SECTION V**

1. The following documents are referred to in this report:

(documents not cited in the search report; copies supplied with this opinion):-

D1.....US-A-5351118

D2.....WO-A-96/12963

(documents cited in the search report):-

D3.... GB 2 032 097 A (BECTON DICKINSON AND COMPANY) 30 April 1980 ,

D4.....US 4 668 868 A (NOLLER, H.T.) 26 May 1987

D5.....US 4 243 318 A (ST HR, M.) 06 January 1981

D6.....EP 289 976 A2 (KRAUSE, H.) 09 November 1988

D7.....EP 177 813 A1 (LABSYSTEMS OY) 16 April 1986

2. Novelty and inventive step

**Claim 1**

D1 discloses a device for detecting microparticles in a fluid. Although claim 1 is directed only to apparatus suitable for detecting particles tagged with fluorescence substance, and is thus not restricted to this application, D1 also discloses such particles - see e.g. col 1, paragraph 6 and col. 3, lines 58-60. The device of D1 comprises a capillary chamber ( see col. 19, lines 46-66) and uses a source and detector to measure fluorescence (see col. 21, lines 51-59). A fluid delivery system is described in cols 16-19 and shown in e.g. figs 1,3,5.

Thus the subject matter of claim 1 is not novel

**Claims 16,28**

For similar reasons these claims are also not novel.

D2 also describes an apparatus which is described for use with a static blood sample, but which could be used also for a sample passed through the sample chamber, and thus anticipates claims 1 and 16. It also reads onto claim 28.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

---

International application No. PCT/US98/11958

**Dependent claims**

The dependent claims seem to relate to mere design modifications, consequential features of the basic system of claims 1, 16, 28, or conventional features, and thus do not add anything inventive to these claims:

Claims 2, 20: see D1, D2

Claims 3, 29, 30, 31: see e.g. D2

Claims 4, 32: see D2

Claims 5-7, 21-23, 33-35: see D6, D7

Claims 8, 36: see e.g. D3, D7

Claim 9: see e.g. D5

Claims 10, 11, 26, 27, 37: see D7

Claim 12, 13: see e.g. D2

Claims 14, 15, 17, 18: see e.g. D1

**SECTION VII**

To comply with the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1, D2, D3, D4, D5, D6 and D7 should have been mentioned in the description.

**SECTION VIII**

1. The presence of the two apparatus independent claims 1 and 16 of varying scope and including features repeated using only slightly varying terminology results in a general lack of conciseness in the claims. Moreover, lack of clarity of the claims as a whole arises, since the plurality of independent claims makes it difficult to determine the matter for which protection is sought, and places an undue burden on others seeking to establish the extent of the protection.
2. Claims 29-37 should apparently relate to a method, not a device.
3. Claims 2-10, 20-24, 26 are obscure in scope, since they attempt to define the apparatus in terms of a sample or parameters thereof, etc. which are not part of the apparatus. Apparently use claims would have been more appropriate.

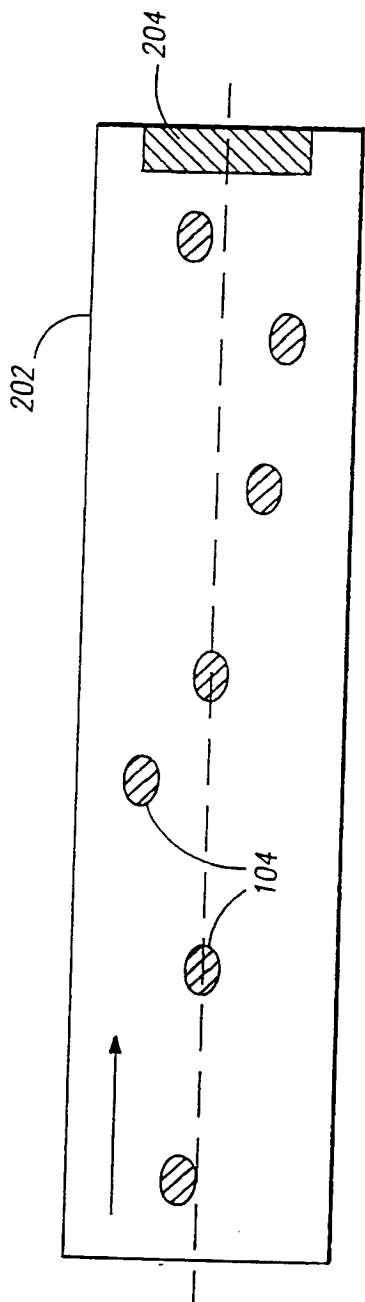


FIG. -2B

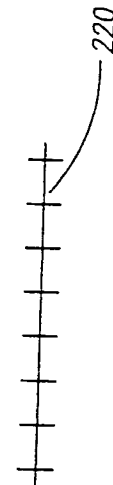
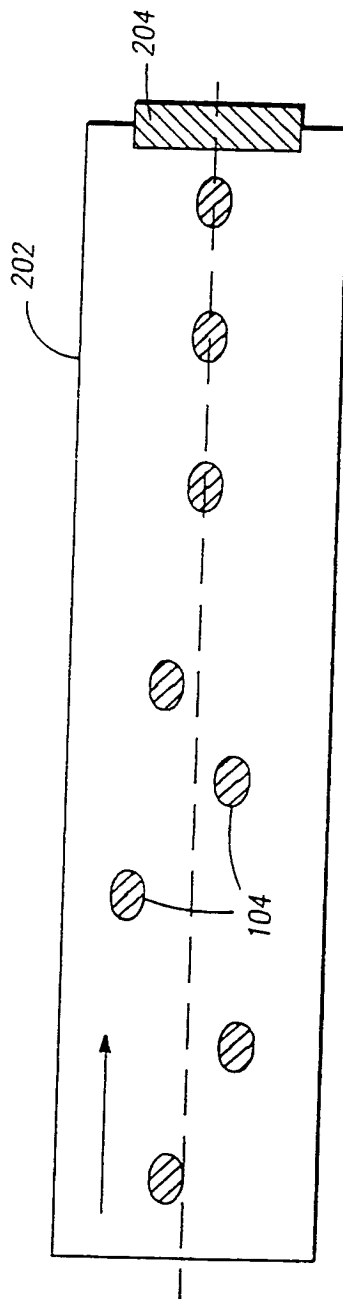


FIG. -2C

# ANHANG

zum internationalen Recherchen-  
bericht über die internationale  
Patentanmeldung Nr.

In diesem Anhang sind die Mitglieder  
der Patentfamilien der im obenge-  
nannten internationalen Recherchenbericht  
angeführten Patendokumente angegeben.  
Diese Angaben dienen nur zur Unter-  
richtung und erfolgen ohne Gewähr.

# ANNEX

to the International Search  
Report to the International Patent  
Application No.

PCT/US 98/11958 SAE 197095

This Annex lists the patent family  
members relating to the patent documents  
cited in the above-mentioned inter-  
national search report. The Office is  
in no way liable for these particulars  
which are given merely for the purpose  
of information.

# ANNEXE

au rapport de recherche inter-  
national relatif à la demande de brevet  
international n°

La présente annexe indique les  
membres de la famille de brevets  
relatifs aux documents de brevets cités  
dans le rapport de recherche inter-  
national visé ci-dessus. Les renseigne-  
ments fournis sont donnés à titre indica-  
tif et n'engagent pas la responsabilité  
de l'Office.

Im Recherchenbericht angeführtes Patendokument Patent document cited in search report Document de brevet cité dans le rapport de recherche	Datum der Veröffentlichung Publication date Date de publication	Mitglied(er) der Patentfamilie Patent family member(s) Membre(s) de la famille de brevets	Datum der Veröffentlichung Publication date Date de publication
GB A1 2032097	30-04-80	DE A1 2929170 DE C2 2929170 FR A1 2431696 FR B3 2431696 GB B2 2032097 US A 4172227	12-06-80 09-02-84 15-03-80 29-05-81 13-10-82 23-10-79
US A 4668868	26-05-87	keine - none - rien	
US A 4243318	06-01-81	DE B1 2732272 DE C2 2732272 FR A1 2397634 GB A1 2002109 GB B2 2002109	26-10-78 05-07-79 09-02-79 14-02-79 13-01-82
EP A2 289976	09-11-88	DE A1 3715114 DE C0 3883061 EP A3 289976 EP B1 289976 US A 5225333	17-11-88 16-09-90 08-08-90 11-08-93 06-07-93
EP A1 177813	16-04-86	FI A0 844027 FI A0 853984 FI A 844027 FI A 853984 JP A2 61096467 US A 4777145	12-10-84 14-10-85 13-04-86 13-04-86 15-05-86 11-10-88